

Washington State HIIAB
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Proposed Path for Achieving Health Information Infrastructure in Washington State

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Proposed Path for Achieving Health Information Infrastructure (HII) in Washington State

- I. Approaching HII Implementation Options Based on HIIAB Goals**
- II. Current Vision for HII**
- III. Proposed Path for Successful HII Implementation**
- IV. Applying Evaluation Criteria to the Proposed Path**
- V. Implementation Issues in Washington State**

I. Approaching HII Implementation Options Based on HIIAB Goals

HIIAB System Design Goals

- Achievable
- Consumer/User Centered
- Incremental
- Ensure Security & Privacy
- Process is Inclusive & Collaborative
- Alignment of Incentives

Overall Goal: Anytime, anywhere, complete patient information and decision support

HIIAB System Design Goals

- Achievable ←
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Achievable: Realistic Assessment of Current Situation

- Existing electronic health information
 - Labs
 - Medications
 - Hospitals: some
 - Physician Offices: few
- Financing
 - Stakeholders want others to pay
 - Consumers may accept modest charges
- No institution is responsible for individuals' lifetime medical records

Incremental: Subset Options

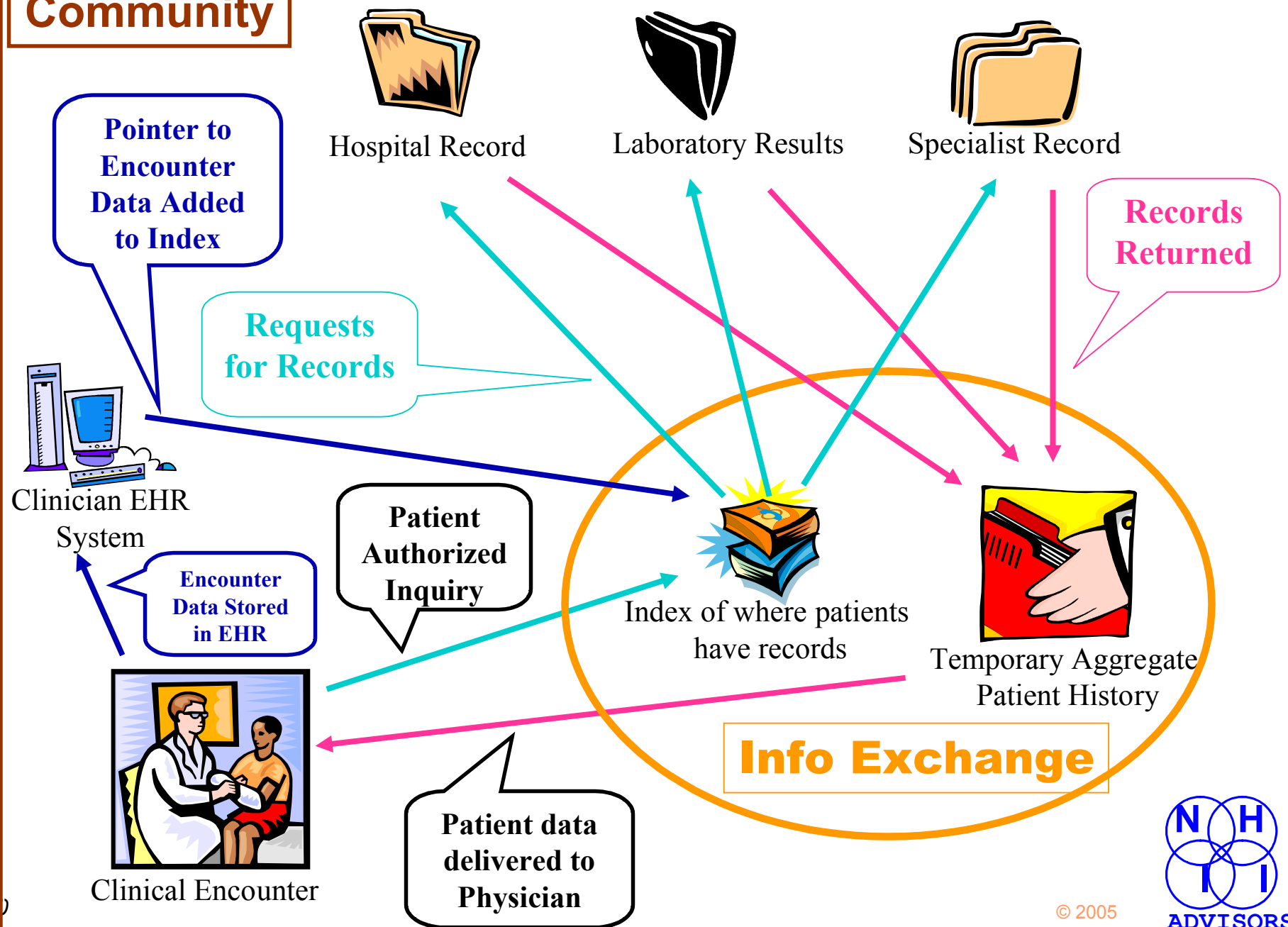
- **Institutional --> all information incomplete**
- **Information subsets (only existing models)**
 - **Labs**
 - **Modest benefit**
 - **Relatively easy to finance**
 - **Hospital Information**
 - **Moderate benefit**
 - **Can be financed (with effort)**
 - **Medications**
 - **Substantial benefit**
 - **Difficult to monetize benefits to finance**
- **How to expand to include all information?**
 - **No path to EHR adoption**

Alignment of Incentives

- **Physicians must be paid to acquire & use EHRs**
- **Stakeholders with information must have incentives to share**
- **Only stakeholder group willing to pay: consumers**

II. Current Vision for Health Information Infrastructure (HII)

Community



U.S.



Hospital Record



Laboratory Results



Specialist Record

Requests
for Records

Records
Returned

Authorized
Inquiry

Index of where patients
have records

Temporary Aggregate
Patient History

**Other Info
Exchange**

Info Exchange

Patient data
delivered



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Problems with indexed, distributed community HII

- All health information systems must have query capability [who pays?]
 - Organizational cooperation challenge (esp. for physicians)
 - Maintaining 24/7/365 availability with rapid response time will be operationally challenging (& costly)
- Searching HII repository is sequential (e.g. for research & public health)
- Where is financial alignment & sustainability?

Examples of Community HII

<u>Name</u>	<u>Data Storage</u>	<u>Financially sustainable?</u>
Spokane, WA	Central	YES
South Bend, IN	Central	YES
Indianapolis, IN	Central	Not yet

Number of operational community HII systems using indexed model: NONE

III. Proposed Path for Successful HII Implementation: eHealthTrust

- A. Roadblocks in Community HII**
- B. Overcoming the Roadblocks**
- C. eHealthTrust Advantages**
- D. eHealthTrust Security**
- E. eHealthTrust Governance**

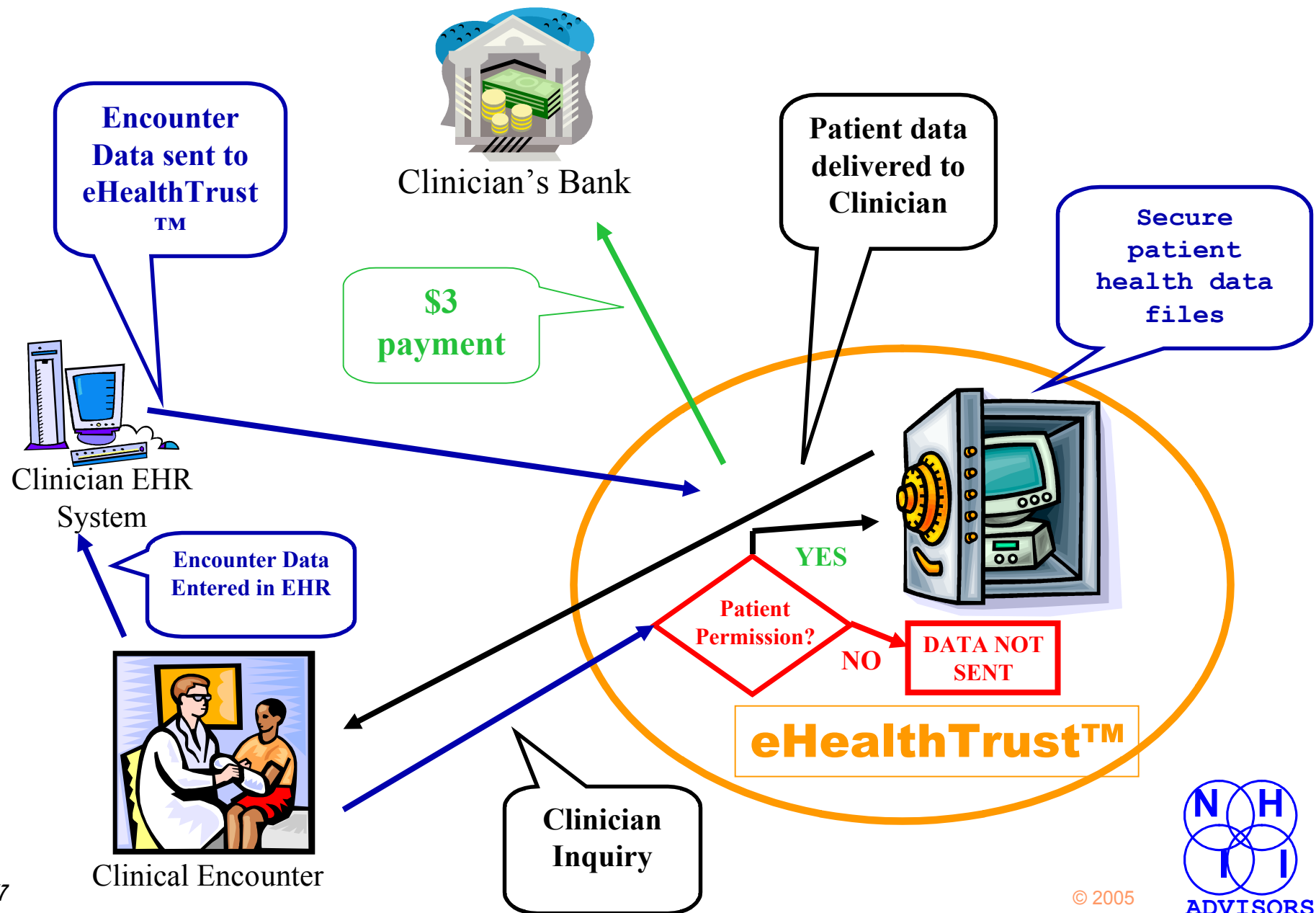
A. Roadblocks to Community Health Information Infrastructure

- 1. Outpatient Electronic Health Record (EHR) use**
 - Information not electronic
 - Financial incentives needed
- 2. Financial sustainability**
 - Hospitals/Labs will only pay for distribution of their own data
 - No funding for sharing outpatient information
- 3. Patient access & control**
 - Absent

B. Overcoming the Roadblocks

- All information for a patient (from all sources) stored in single eHealthTrust “account” controlled by that patient
- Charge \$50-100/year/patient (< \$9/mo)
 - Paid by patient, payer, or purchaser
- All data sources contribute at patient request (per HIPAA)
- Operating Cost < \$20/year/patient
- Payments to clinicians for submitting standard electronic clinical info provides incentives for EHR acquisition (~\$2-4/encounter)**

eHealthTrust™



Health Information Infrastructure Roadblocks Removed

1. Outpatient EHR use
 - Financial incentives provided
 - 20 pts/day --> \$10-20,000/year
 - Rapid EHR* adoption
2. Financial sustainability
 - Low cost to purchasers/patients
 - Simplicity --> low cost
 - Real benefits
3. Patient access & control
 - Total

C. eHealthTrust Advantages

- **Rapid Response Time**
 - All patient information in one place
- **Works Regardless of Patient Location**
 - Internet access: secure web portal
 - Patient has “ATM-like” card that directs any provider to the complete record
- **No Complex Interfaces to Other Communities or eHealthTrusts**
- **Easily Integrated with**
 - Patient-entered information
 - Patient education information
 - Patient reminders
 - Patient-provider electronic communication
- **Provides for Public Health and Research**
 - Selective reporting to public health when new information received
 - Searchable database (with patient permission) for research

C. eHealthTrust Advantages (cont.)

- **Cooperation Assured**
 - Unifying; HIPAA mandates information on patient request
- **Complexity Minimized**
 - Each information holder relates only to eHealthTrust
 - Interoperability problems greatly reduced
- **Privacy/Confidentiality Addressed**
 - Patient controls all access to his/her info
- **Complete Financial Model Defined**
 - Source of funding clear
 - Low cost (1% of health care costs)

C. eHealthTrust Advantages (cont.)

- Promotes Gradual Standards Adoption
 - Initial standard enforced through patent
 - Reimbursement policy can improve standard over time (e.g. to increase coding)
- Provides Transition from Paper Records
 - Fax images of paper records stored
 - Metadata facilitates some indexing
- Simple IT Design
 - Greatly reduces costs
 - No new technology
- Immediate Realization of Benefits
 - Each eHealthTrust member gets immediate benefit from complete records
 - Benefits not contingent on critical mass (except EHR incentives)



D. eHealthTrust Security

- Clinical server (“cubbyhole server”)
 - Ultra-secure “separation kernel”
 - Subset of secure operating system
 - Each user has hardware-enabled “virtual machine” that cannot impact others
 - Only operation is retrieval of one record
 - User then logged off
 - No searching possible
 - No database software
- Research server has copy of clinical data
 - No phone lines or network connections
 - Consumer permission required for searching
 - Bulk of searching revenue --> consumer
 - Access requires physical presence

E. eHealthTrust Governance

- **New community non-profit organization**
 - **All stakeholders represented**
 - **Independent privacy/confidentiality oversight**
 - **Public accountability**
- **Technology provider options**
 - **Internal to non-profit**
 - **External for-profit contractor(s)**
- **Community is self-defining**
 - **Large enough for critical mass**
 - **Small enough to be manageable**

IV. Applying Evaluation Criteria to the eHealthTrust

- A. HIIAB Goals**
- B. HII Evaluation Criteria**
- C. Consumer Principles for System Design**

A. HIIAB Goals

- Achievable
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B. HII Evaluation Criteria

■ Requirements

- Privacy
 - Need-to-know access
 - Patient trust
 - Patient access control
- Transition from paper records
 - Availability of paper records
 - Incentives for clinician EHRs
- Access to information
 - Access at point-of-care
 - Integration of all patient info
 - Standard encoding of all patient info
 - Public health reporting
 - Availability of info for research & knowledge management
- Incremental Steps
 - Initial small project
 - Expandable
- Universal Availability
 - Availability to all
 - Voluntary participation

■ Feasibility

- User Acceptance
 - Easy to use
 - Clear & immediate benefits
 - Compatible with workflow
- Stakeholder acceptance
 - Provides real value (ROI)
- Technical
 - Simple to implement
 - Done successfully before - **NO**
 - Rapid deployment
 - Simple to maintain

■ Financing

- Building the System - **WHO PAYS?**
 - Initial cost
 - Availability of funds
 - Reliability of cost estimates
- Sustaining the System
 - Ease of allocating costs
 - Likelihood of continuing financial support
 - Maintenance & operations costs - adapt to new technology
 - Stability of financial model



C. Consumer Principles for System Design

1. Consumers have access to their information
2. Consumers control access to their information
3. Consumers may delegate access control
4. Consumers are informed about how their data may be used/shared
5. Consumers may review names of entities that have had access to their information
6. Information integrity, security, privacy, and confidentiality is protected
7. System has independent oversight
 - Accountable to public
 - Full voting participation of consumers

V. eHealthTrust Implementation Issues in Washington State

- **Startup costs: about \$5 million**
- **Breakeven at \$4.95/month subscription fee**
 - **Phase I: No EHR incentives**
 - 130,000 subscribers [2.1% of state]
 - **Phase II: EHR incentives with local marketing**
 - 170,000 subscribers
- **Logical Phase II pilot communities:**
 - **Spokane**
 - **Whatcom County**
- **Possible sources of initial financing of Phase I**
 - **Purchasers (employers)**
 - **State appropriation**
 - **Grant(s)**

SUMMARY: The eHealthTrust Path to Achieving Health Information Infrastructure

I. Central Community Repository

II. Paid for and Controlled by Patients

III. Solves Key Problems

- Privacy assurance for consumers
- EHR incentives for physicians
- Financial sustainability
- Cooperation by health care institutions
- Adoption and gradual improvement of standards
- Minimal startup costs (\$5 million)

Questions?

For more information:

www.ehealthtrust.com

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